

SUBCHAPTER V : THERMAL CONTROL DEVICES

§106.491. Dual Chamber Incinerators (Previously SE 2).

Dual-chambered incinerators which meet the following conditions of this section are exempt:

(1) design requirements.

(A) A burner in the secondary chamber shall maintain a temperature of 1,200 degrees Fahrenheit or higher in the secondary chamber.

(B) The manufacturer's rated capacity (burn rate) shall be 1,000 pounds per hour or less for Type 0, Type 1, and Type 2 waste only, in which:

(i) Type 0 (trash) wastes - principal components are highly combustible waste, paper, wood, cardboard cartons, including up to 10% treated papers, plastic, or rubber scraps. Moisture content less than or equal to 10%; noncombustible solids less than or equal to 5.0%; and

(ii) Type 1 (rubbish) wastes - principal components are trash, rags, wood scraps, garbage (animal and vegetable wastes), and combustible floor sweepings. Garbage content cannot exceed 20%. Moisture content less than or equal to 25%; noncombustible solids less than or equal to 10%; and

(iii) Type 2 (refuse) wastes - principal components are trash and rubbish. Garbage content cannot exceed 50%. Moisture content less than or equal to 50%; noncombustible solids less than or equal to 7.0%.

(C) There shall be no obstruction to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is operated. Properly installed and maintained spark arrestors are not considered obstructions;

(2) operational conditions.

(A) The manufacturer's recommended operating instructions shall be posted at the incinerator and the unit shall be operated in accordance with these instructions.

(B) Fuel for the incinerator shall be limited to sweet natural gas, liquid petroleum gas, Number 2 fuel oil with less than 0.5% sulfur by weight, or electric power.

(C) This facility shall be used solely for the disposal of waste materials generated on-site. Incinerators used in the processing or recovery of materials or to dispose of pathological, hospital, and/or infectious waste are not covered by this section. Pathological waste shall be defined only as carcasses, gauze dressings, blood, body fluids, tissue, human and/or animal remains, and the associated wood,

cardboard, paper, or non-chlorinated plastic waste containers. Heat recovery, where no auxiliary fuel is burned, is allowed by this section.

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§106.492. Flares (Previously SE 80).

Smokeless gas flares which meet the following conditions of this section are exempt:

(1) design requirements.

(A) The flare shall be equipped with a flare tip designed to provide good mixing with air, flame stability, and a tip velocity less than 60 feet per second (ft/sec) for gases having a lower heating value less than 1,000 British thermal units per cubic foot (Btu/ft³) or a tip velocity less than 400 ft/sec for gases having a lower heating value greater than 1,000 Btu/ft³.

(B) The flare shall be equipped with a continuously burning pilot or other automatic ignition system that assures gas ignition and provides immediate notification of appropriate personnel when the ignition system ceases to function. A gas flare which emits no more than 4.0 pounds per hour (lb/hr) of reduced sulfur compounds, excluding sulfur oxides, is exempted from the immediate notification requirement, provided the emission point height meets the requirements of §106.352(4) of this title (relating to Oil and Gas Production Facilities (Previously SE 66)).

(C) A flare which burns gases containing more than 24 parts per million by volume (ppmv) of sulfur, chlorine, or compounds containing either element shall be located at least 1/4 mile from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the flare or the owner of the property upon which the flare is located.

(D) The heat release of a flare which emits sulfur dioxide (SO₂) or hydrogen chloride (HCl) shall be greater than or equal to the following values: Figure: 30 TAC §106.492(D)

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$$\text{For HCl} \quad Q = 2.73 \times 10^5 \times \text{HCl}$$

$$\text{For SO}_2 \quad Q = 0.53 \times 10^5 \times \text{SO}_2$$

Where Q = heat release, British thermal units per hour, based on lower heating value

HCl = HCl emission rate, lb/hr

SO₂ = SO₂ emission rate, lb/hr

(2) operational conditions.

(A) The flare shall burn a combustible mixture of gases containing only carbon, hydrogen, nitrogen, oxygen, sulfur, chlorine, or compounds derived from these elements. When the gas stream to be burned has a net or lower heating value of more than 200 Btu/ft³ prior to the addition of air, it may be considered combustible.

(B) A flare which burns gases containing more than 24 ppmv of sulfur, chlorine, or compounds containing either element shall be registered with the commission's Office of Air Quality in Austin using Form PI-7 prior to construction of a new flare or prior to the use of an existing flare for the new service.

(C) Under no circumstances shall liquids be burned in the flare.

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§106.493. Direct Flame Incinerators (Previously SE 88).

Direct flame incinerators installed for the purpose of reducing or eliminating non-halogenated volatile organic compound vapors and/or aerosols (but not liquids or solids) are exempt, provided the following conditions of this section are satisfied.

(1) Before construction begins, the facility shall be registered with the commission's Office of Air Quality in Austin using Form PI-7.

(2) Each direct flame incinerator shall be automatically controlled to maintain a minimum temperature of 1,400 degrees Fahrenheit in the combustion chamber (secondary chamber if dual-chambered) and a gas retention time of 0.5 second or greater.

(3) Continuous temperature monitors to record the temperature of the combustion chamber (secondary chamber if dual chambered) shall be installed and maintained. Temperature data shall be maintained on a rolling two-year retention basis and shall be made available at the request of personnel from the commission or any local air pollution control program having jurisdiction.

(4) Manufacturer's recommended operating instructions shall be posted at each incinerator and each unit shall be operated in accordance with these instructions.

(5) Opacity of emissions from the incinerator shall not exceed 5.0% averaged over a five-minute period.

(6) There shall be no obstructions to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is in operation. Properly installed and maintained spark arrestors are not considered obstructions.

(7) Heat for the incinerator shall be provided by the combustion of sweet natural gas, liquid petroleum gas, or Number 2 fuel oil with no more than 0.5% sulfur by weight or by electric power.

(8) The gases being incinerated shall contain no halogenated organic compounds.

(9) This section shall not apply to catalytic incinerators or direct flame incinerators installed to control emissions from new or modified facilities subject to the requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification).

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§106.494. Pathological Waste Incinerators (Previously SE 90).

Crematories and non-commercial incinerators used to dispose of pathological waste and carcasses which meet the following conditions of this section are exempt:

(1) design requirements.

(A) The manufacturer's rated capacity (burn rate) shall be 200 pounds per hour or less.

(B) The incinerator shall be a dual-chamber design.

(C) Burners shall be located in each chamber, sized to manufacturer's specifications, and operated as necessary to maintain the minimum temperature requirements of subparagraphs (D) or (E) of this paragraph at all times when the unit is burning waste.

(D) Excluding crematories, the secondary chamber must be designed to maintain a temperature of 1,600 degrees Fahrenheit or more with a gas residence time of 1/2 second or more.

(E) In lieu of subparagraph (D) of this paragraph, incinerators at animal feeding operations that:

(i) are used to dispose of carcasses generated on-site; and

(ii) are located a minimum of 700 feet from the nearest property line, shall be designed to maintain a secondary chamber temperature of 1,400 degrees Fahrenheit or more with a gas residence time of 1/4 second or more.

(F) There shall be no obstructions to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is operated. Properly installed and maintained spark arrestors are not considered obstructions.

(2) operational conditions.

(A) Before construction begins, the facility shall be registered with the commission using Form PI-7.

(B) The manufacturer's recommended operating instructions shall be posted at the unit and the unit shall be operated in accordance with these instructions.

(C) The opacity of emissions from the incinerator shall not exceed 5.0% averaged over a five-minute period.

(D) Heat shall be provided by the combustion of sweet natural gas, liquid petroleum gas, or Number 2 fuel oil with less than 0.3% sulfur by weight, or by electric power.

(E) Incinerators used in the recovery of materials are not covered by this section.

(F) Incinerators installed and operated in accordance with the conditions of this section shall not be used to dispose of any medical waste, other than pathological waste and/or carcasses.

(G) Incinerators installed and operated in accordance with the conditions of this section shall also meet the requirements of §§111.121, 111.123, 111.124, 111.125, 111.127, and 111.129 of this title (relating to Single-, Dual-, and Multiple-Chamber Incinerators; Medical Waste Incinerators; Burning Hazardous Waste Fuels in Commercial Combustion Facilities; Testing Requirements; Monitoring and Recordkeeping Requirements; and Operating Requirements).

(H) Crematories shall be used for the sole purpose of cremation of human remains and appropriate containers.

(3) definitions.

(A) Pathological waste (as defined in 25 TAC §1.132 (relating to Definitions)) - Includes, but is not limited to:

(i) human materials removed during surgery, labor and delivery, autopsy, or biopsy, including:

(I) body parts;

(II) tissues or fetuses;

(III) organs; and

(IV) bulk blood and body fluids;

(ii) products of spontaneous or induced human abortions, including body parts, tissues, fetuses, organs, and bulk blood and body fluids, regardless of the period of gestation;

(iii) laboratory specimens of blood and tissue after completion of laboratory examination; and

(iv) anatomical remains.

(B) Human remains (as defined in Health and Safety Code (H&SC), §711.001) -
The body of decedent.

(C) Carcasses - Dead animals, in whole or part.

(D) Crematory (as defined in the H&SC, §711.001) - A structure containing a
furnace used or intended to be used for the cremation of human remains.

(E) Animal feeding operations - A lot or facility (other than an aquatic animal
feeding facility or veterinary facility) where animals are stabled or confined and fed or maintained for a total
of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops,
vegetation, forage growth, or post-harvest residues in the normal growing season.

(F) Non-commercial incinerator - An incinerator which does not accept pathological
waste or carcasses generated off-site for monetary compensation.

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§106.495. Heat Cleaning Devices (Previously SE 87).

Heat cleaning devices (such as ovens, furnaces, and/or direct flame incinerators) used to thermally
remove residual combustible or semi-combustible materials from noncombustible electrical or mechanical
parts are exempt, provided the following conditions of this section are satisfied.

(1) Before construction begins, the facility shall be registered with the commission's Office
of Air Quality in Austin using Form PI-7.

(2) The combustible material shall not exceed 10% by weight of the total load to the oven,
furnace, and/or incinerator.

(3) The combustible material shall contain no halogenated organic compounds.

(4) The oven, furnace, and/or incinerator shall be equipped with an afterburner
automatically controlled to operate with a minimum temperature of 1,400 degrees Fahrenheit and a gas
retention time of 0.5 second or greater.

(5) Opacity of emissions from the oven, furnace, and/or incinerator shall not exceed 5.0%
averaged over a five-minute period.

(6) The manufacturer's recommended operating instructions shall be posted at each oven,
furnace, and/or incinerator, and each unit shall be operated in accordance with these instructions.

(7) Heat shall be provided by the combustion of sweet natural gas, liquid petroleum gas, or Number 2 fuel oil with no more than 0.5% sulfur by weight, or by electric power.

(8) The emission of any air contaminant shall not exceed 0.5 pounds per hour and 2.0 tons per year.

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§106.496. Trench Burners (Previously SE 97).

Any trench burner that operates according to the following conditions of this section is exempt.

(1) The trench burner shall be operated at least 300 feet from any recreational area, residence, or other structure not occupied or used solely by the owner of the trench burner or the owner of the property upon which the trench burner is located.

(2) The trench shall be opened in undisturbed soil not previously excavated, built up, compacted, or used in any type of landfill operation.

(3) The trench shall be no wider than 12 feet with a minimum depth of ten feet. The maximum length of the burning area as measured along the bottom of the trench shall not exceed by more than five feet the length of the manifold. The walls of the trench must be maintained such that they remain vertical.

(4) Operation of this trench burner is limited to the hours between 8:00 a.m. and 6:00 p.m., and is limited to a total of eight hours per day and 1,000 hours per year. A written record or log of the hours of operation of this trench burner shall be maintained at the site and made available at the request of personnel from the commission or any local air pollution control program having jurisdiction. This record or log shall be organized such that the compliance status of this special condition can be readily determined.

(5) Material shall not be added to the trench such that the material will not be consumed by 6:00 p.m.

(6) The blower shall remain on until all material is consumed so that any remaining material in the trench will not smoke when the blower is turned off.

(7) This trench burner shall not be operated when an air stagnation advisory is in effect for the area in which the trench burner is located.

(8) Opacity of emissions from the trench and from operation of the blower shall not exceed 20% averaged over a five-minute period, except for a start-up period which shall not exceed 20 minutes. Opacity shall be measured as outlined in Chapter 13, "Visible Emissions Evaluation," of the commission's Sampling Procedures Manual, as published in January 1983, and as subsequently revised.

(9) Material to be burned in the trench is limited to not more than 7.0 tons per hour of trees, brush, and untreated lumber. Material not being worked and material being stockpiled to be burned at a later date must be kept at least 75 feet from the trench.

(10) Material shall not be added to the trench in such a manner as to be stacked above the air curtain at any time.

(11) The ash generated by this operation shall be removed from the trench as necessary in order to maintain the minimum trench depth of ten feet. The ash shall be removed in such a manner as to minimize the ash becoming airborne. All material removed from the trench must be completely extinguished before being landfilled or placed in contact with combustible material to prevent combustion outside of the trench or in the landfill.

(12) A copy of this section shall be kept at the burn site and made available at the request of personnel from the commission or any local air pollution control program having jurisdiction.

(13) Operating instructions shall be posted at the burn site and all operators shall read and have knowledge of these instructions. The operating instructions shall be made available at the request of personnel from the commission or any local air pollution control program having jurisdiction.

(14) An operator shall remain with the trench burner at all times when it is operating.

(15) Upon notification by a representative of the commission or any local air pollution control program having jurisdiction that the trench burner is not complying with the conditions of this section, no additional material shall be added to the trench until compliance with such conditions has been effected.

(16) The Texas Natural Resource Conservation Commission (TNRCC) shall be notified by the owner or operator of the trench burner prior to use of the trench burner at a TNRCC permitted landfill.

(17) Upon removal of the trench burner from the burn site, the trench shall be completely filled with uncombustible material.

(18) Before operation of the facility begins at any site, written site approval shall be received from the executive director and any local air pollution control program having jurisdiction in the area and the facility shall be registered with the commission's Office of Air Quality in Austin using Form PI-7.

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